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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,157	02/12/2002	Lawrence Schrank	OCBI-001/00US	5044

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EXAMINER

CARTER, AARON W

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/074,157

Applicant(s)

SCHRANK, LAWRENCE

Examiner

Aaron W Carter

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2,3.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 8, 9, 14, 16, 18, 19 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,259,815 to Anderson et al. ("Anderson").

As to claim 8, Anderson discloses a system for verifying the identity of a target object (Fig. 2), the system comprising:

An image collection device configured to output an image record for the target object in a native format (Fig. 2, element 220 and column 3, lines 1-2);

A data converter connected to the image collection device, the data converter configured to convert the image record from the native format to a voxel-based format (Fig. 2, element 230 and column 3, lines 2-7);

A comparator connected to the data converter, the comparator configured to compare the voxel-based format of the image record against a stored voxel-based image record (Fig. 2, element 240 and column 3, lines 18-25); and

Art Unit: 2625

An output device connected to the comparator, the output device configured to generate an output responsive to the comparator matching the voxel-based format of the image record against the stored voxel-based image record (Fig. 2, element 270 and 160 and column 3, lines 25-28).

As to claim 9, Anderson discloses the system of claim 8, wherein the image collection device comprises a three-dimensional laser scanner (Fig. 1a, element 130 and column 2, lines 44-45).

As to claim 14, Anderson discloses a system for verifying the identity of a target object, the system comprising:

An image collection device configured to collect a three-dimensional image record descriptive of a target object (Fig. 2, elements 220, 221, 230 and column 3, lines 2-7);

A data reader configured to read a baseline three-dimensional image record from a data storage device (Fig. 2, elements 150 and column 3, lines 18-20).

A comparator connected to the image collection device and the data reader, the comparator configured to compare the three-dimensional image record of the target object with the baseline three-dimensional image record (Fig. 2, element 240 and column 3, lines 18-25); and

An output device connected to the comparator, the output device configured to generate an output responsive to the comparator matching the three-dimensional image

Art Unit: 2625

record of the target object with the baseline three-dimensional image record (Fig. 2, element 270 and 160 and column 3, lines 25-28).

As to claim 16, Anderson discloses the system of claim 14, wherein the baseline three-dimensional image record comprises:

A voxel data set (column 3, lines 46-51).

As to claim 18, please refer to rejections made for claim 14 above.

As to claim 19, please refer to rejections made for claim 16 above.

As to claim 21, Anderson discloses a method for verifying the identity of a target object, the method comprising:

Receiving a three-dimensional image record for a target object, wherein the three-dimensional image record comprises a voxel data set (Fig. 2 elements 220 and 230 and column 3, lines 1-7);

Identifying a first target object characteristic reflected in the image record (Fig. 2, 240); and

Locating a matching image record in a plurality of stored image records, wherein the matching image record includes an object characteristic matching the identified first target object characteristic (Fig. 2, elements 240, 260 and column 3, lines 18-25).

Art Unit: 2625

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 10, 12, 17, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of USPN 5,123,084 to Prevost et al. ("Prevost").

As to claim 1, Anderson discloses a method for verifying the identity of a target object, the method comprising:

Collecting a three-dimensional image record for a target object, wherein the collected image record is in a native format (Fig. 2 elements 220 and 230 and column 3, lines 1-7).

Identifying a target-object-characteristic reflected in the voxel data set (Fig. 2, 240); and

Locating a matching image record in a plurality of stored image records, wherein the matching image record includes a characteristic matching the identified target-object-characteristic (Fig. 2, elements 240, 260 and column 3, lines 18-25).

Anderson does not disclose expressly converting the 3-D image record to a dual-octree-format voxel data set.

However, Prevost discloses converting the 3-D image record to a dual-octree-format voxel data set (column 1, lines 40-50).

Art Unit: 2625

Anderson & Prevost are combinable because they are from same art of 3-D image processing .

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to add to the invention of Anderson the conversion of a 3D image into dual-octree-format as taught by Prevost.

The suggestion/motivation for doing so would have been that the converting to dual-octree-format makes the processing uncomplicated and inexpensive (Prevost, column 1, lines 35-39).

Therefore, it would have been obvious to combine Anderson with Prevost to obtain the invention as specified in claim 1.

As to claim 2, the combination of Anderson and Prevost disclose the method of claim 1, Anderson further discloses wherein collecting a three-dimensional image record comprises:

Scanning a face (column 2, line 36, wherein people inherently have a face).

As to claim 3, the combination of Anderson and Prevost disclose the method of claim 1, Anderson further discloses transferring the collected 3D image record over a network (Fig. 1a and column 2, lines 47-49, wherein the database is connected by a network).

As to claim 4, the combination of Anderson and Prevost disclose the method of claim 1, Anderson further discloses wherein the collecting a 3-D image record comprises:

Art Unit: 2625

Reading the 3-D image record from a data storage device (Fig. 1a, element 150 and column 2, lines 47-49).

As to claim 10, please refer to the rejections made for claim 1 above.

As to claim 12, please refer to the rejections made for claims 1 and 8 above.

As to claim 17, please refer to the rejections made for claim 1 above.

As to claim 20, please refer to the rejections made for claim 1 above.

As to claim 22, please refer to the rejections made for claim 1 above.

4. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson and Prevost in view of USPN 5,787,187 to Bouchard et al. ("Bouchard").

As to claim 5, the combination of Anderson and Prevost discloses the method of claim 4.

Neither Anderson nor Prevost disclose expressly reading the 3D image record from a smart card.

However Bouchard discloses reading an image record from a smart card (column 6, lines 49-60).

Anderson, Prevost & Bouchard are combinable because they are from the art of image analysis.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a smart card to store the 3D image record.



Art Unit: 2625

The suggestion/motivation for doing so would have been that the smart card provides storage medium that is the size of a credit card (column 6, lines 49-60).

Therefore, it would have been obvious to combine Anderson and Prevost with Bouchard to obtain the invention as specified in claim 5.

As to claim 15, please refer to the rejections made for claim 5 above.

5. Claims 6, 7, 11, 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson and Prevost in view of USPN 5,689,241 to Clarke, Sr. et al. ("Clarke").

As to claim 6, the combination of Anderson and Prevost discloses the method of claim 1.

Neither Anderson nor Prevost disclose expressly collecting thermal data about the target object.

However, Clarke discloses collecting thermal data about the target object (column 2, lines 55-59).

Anderson, Prevost & Clarke are combinable because they are from the same art of image processing and analysis.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the invention of Anderson and Prevost with the teaching of Clarke.

Art Unit: 2625

The suggestion/motivation for doing so would have been that along with the image data one would have the heat output of the object being imaged (column 2, lines 55-59).

Therefore, it would have been obvious to combine Anderson and Prevost with Clarke to obtain the invention as specified in claim 6.

As to claim 7, please refer to the rejections made for claim 6 above.

As to claim 11, please refer to the rejections made for claim 6 above.

As to claim 13, please refer to the rejections made for claim 6 above.

As to claim 23, please refer to the rejections made for claim 6 above.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 6,038,33 to Wang discloses scanning a face.

USPN 6,181,806 to Kado discloses scanning a face.

USPN 6,330,523 to Kacyra et al. discloses 3-D image modeling.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W Carter whose telephone number is (703) 306-4060. The examiner can normally be reached on 7am - 3:30 am (Mon. - Fri.).

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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